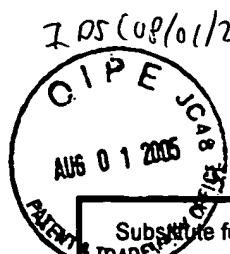


205 (08/01/2005) (08/24/2005)



PTO/SB/08a (08-03)

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Submission for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
Sheet 1 of 3		Application Number		09/930,836	
		Filing Date		August 15, 2001	
		First Named Inventor		Paul C. Kocher	
		Group Art Unit		2132	
		Examiner Name		Justin T. Darrow	
		Attorney Docket No.r		44424162-8724	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
JD		4,211,919 A	07/08/1980	Michel Ugon	235 / 487
JD		4,295,041 A	10/13/1981	Michel Ugon	234 / 487
JD		4,916,333 A	04/10/1990	Jacek Kowalski	307 / 296.5
JD		4,932,053 A	06/05/1990	Serge Fruhauf et al.	380 / 4
JD		5,297,201 A	03/22/1994	John H. Dunlavy	380 / 6
JD		5,412,723 A	05/02/1995	Ran Canetti et al.	380 / 21
JD		5,636,157 A	06/03/1997	James H. Hesson et al.	364 / 788
JD		5,991,415 A	11/23/1999	Adi Shamir	380 / 30
JD		6,434,238 B1	08/13/2002	David Chaum et al.	380 / 45
JD		6,698,662 B1	03/02/2004	Nathalie Feyt et al.	235 / 492

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
JD		BP 96201136.0	11/28/1990	Koninklijke PTT Nederland N.V.	104 L 9/06	<input type="checkbox"/>
JD		EP 0 399 587 A1				
JD		WO 99/08411 A2	02/18/1999	Jonathan Stiebel	104 K 1/00	<input type="checkbox"/>

Examiner Signature	Justin Darrow	Date Considered	08/2/2005
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				Examiner Name	Justin T. Darrow
Sheet	2	of	3	Attorney Docket No.	44424162-8724

OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
JD		BACK, Adam, "Non-Interactive Forward Secrecy" 09/06/1996	
JD		BELL, Jim, "Spread-Spectrum Computer Clock?" Google Beta Groups	
JD		BELLARE et al., "Optimal Asymmetric Encryption", Advanced Networking Laboratories, 1998, pp 92-111, Springer-Verlag, U.S.A.	
JD		BELLARE et al, "The Exact Security of Digital Signatures- How to Sign with RSA and Rabin", Advances in Cryptology - Eurocrypt 96 Proceedings, Lecture Notes in Computer Science, Vol. 1070, , pp 1-16, U. Maurer ed., Springer-Verlag, 1996	
JD		BELLARE et al, "Forward Integrity For Secure Audit Logs", pp 1-16, November 23, 1997, U.S.A.	
JD		FRANKEL et al., "Optimal-Resilience Proactive Public-Key Cryptosystems" IEEE Symposium on Foundations of Computer Science, 1997	
JD		FRANKEL et al., "Proactive RSA", Lecture Notes in Computer Science, 1996	
JD		HERZBERG et al, "Proactive Public Key and Signature Systems", ACM Conference on Computer and Communications Security, 1996	
Examiner Signature		Justin Darrow	Date Considered 09/21/2005

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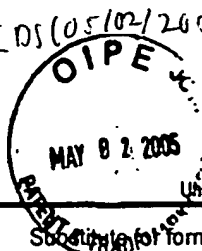
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		Application Number	09/930,836		
		Filing Date	August 15, 2001		
		First Named Inventor	Paul C. Kocher		
		Group Art Unit	2132		
Sheet	3	of	3	Examiner Name	Justin T. Darrow
				Attorney Docket No.	44424162-8724
OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
JD		MENZES et al, "Pseudorandom Bits and Sequences", Handbook of Applied Cryptography, CRC Press, Chapter 5, pp 169-190, 1996			
JD		MENZES et al, "Efficient Implementation", Handbook of Applied Cryptography, CRC Press, Chapter 14, pp 591-634, 1996			
JD		RIVEST, Ronald, "Timing Cryptanalysis of RSA, DH, DDS" Google Beta Groups			
Examiner Signature	Justin Darrow			Date Considered	08/21/2005

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			Group Art Unit	2132	
Examiner Name	Justin T. Darrow				
Attorney Docket Number	44424162-8724				
Sheet	1	of	2		

U.S. PATENT DOCUMENTS						Class/Subclass
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
JD		4,799,258 A	01-17-1989	Donald Davies	380/21	
JD		5,506,905 A	04-09-1996	Dale Markowski et al.	380/25	
JD		5,546,463 A	08-13-1996	Anthony A. Caputo et al.	380/25	

FOREIGN PATENT DOCUMENTS						Class/Subclass
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JD		EP 0 656 708 A1	06-07-1995	International Business Machines Corporation	H04L 9/08	<input type="checkbox"/>
						<input type="checkbox"/>

Examiner Signature	Justin Darrow	Date Considered	08/21/2005
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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/930,836
		Filing Date	August 15, 2001
		First Named Inventor	Paul C. Kocher
		Group Art Unit	2132
		Examiner Name	Justin T. Darrow
		Attorney Docket Number	44424162-8724
Sheet	2	of	2

OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
JP		KOCHER, P., "Timing Attacks on Implementations of Diffie-Hellman, RSA, DSS, and Other Systems", 08/18/1996 XP000626590	

Examiner Signature	<i>Justin T. Darrow</i>	Date Considered	08/21/2005
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁵
		Country Code ² Number ⁴ Kind Code ³ (if known)				

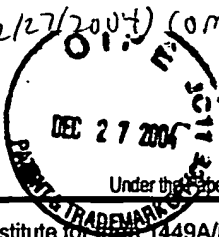
Examiner Signature	<i>Justin Rump</i>	Date Considered	08/21/2005
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			Filing Date	August 15, 2001	
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			Examiner Name	Darrow, Justin T.	
Sheet	1	of	1	Attorney Docket Number	44424162-8724

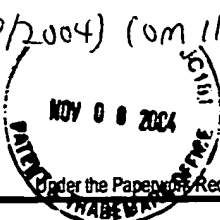
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		Number-Kind Code ² (if known)			
<i>J</i>		5,944,833 <i>A</i>	08/31/1999	Ugon	<i>713/400</i>

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<i>J</i>		EP0826169B1	12/9/1997	Ugon	<i>606 F 1/04</i>	
<i>J</i>		EP1064752B1	23/09/1999	Salle	<i>404 L 9/06</i>	
<i>J</i>		EP1204948B1	1/2/2001	Leydier	<i>606 K 19/079</i>	

Examiner Signature	<i>Justin Darrow</i>	Date Considered	<i>08/21/2005</i>
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JD		*5,664,017 A	09/02/1997	Gressel et al.	390/30

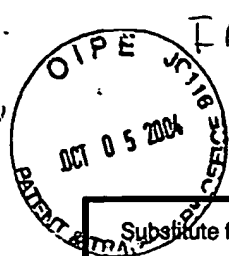
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Examiner Signature	Justin Darrow	Date Considered	08/21/2005
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			Examiner Name	Darrow, Justin T.	
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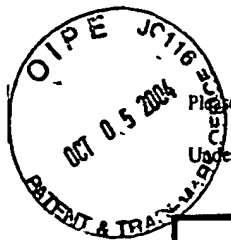
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JP	BT	4,107,458 A	01/08/1978	Constant	178/22
JP	BU	4,139,839 A	01/02/1979	Fletcher et al. Engel et al.	340/347 DP
JP	BV	4,569,052 A	04/02/1986	Cohn et al.	371/38
JP	BW	4,605,921 A	08/01/1998	Riddle et al.	340/347 DP
JP	BX	5,144,667 A	09/01/1992	Pogue et al.	380/45
JP	BY	5,159,632 A	10/27/1992	Crandell	380/28
JP	BZ	5,297,201 A	03/22/1994	Dunlavy	380/6
JP	CA	5,511,123 A	4/23/1996	Adams	380/29
JP	CB	5,551,013 A	08/27/1996	Beausoleil et al.	385/500
JP	CC	5,559,890 A	09/09/1996	Obermeire et al	380/48
JP	CD	5,670,934 A	09/23/1997	Ina et al.	340/426
JP	CE	5,710,834 A	01/01/1998	Rhoads	382/232
JP	CF	5,892,829 A	04/06/1999	Aiello et al.	380/25
JP	CG	5,982,900 A	11/09/1999	Ebihara et al.	380/38

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ⁴ Number ⁵ Kind Code ⁵ (if known)				
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Examiner Signature	<i>Justin Darrow</i>	Date Considered	08/21/2005
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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	09/930,836		
		Filing Date	August 15, 2001		
		First Named Inventor	Paul C. Kocher		
		Group Art Unit	2132		
		Examiner Name	Darrow, Justin T.		
Sheet	2	of	2	Attorney Docket Number	44424162-8724

OTHER ITEMS – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	CiteNo.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
JP	CH	LACY, J. et al., "CryptoLib Version 1.1", File Bigpow.c from CryptoLib, United States, November 1999.	
JP	CI	"File NN.C from RSAFEF", RSA Laboratories, a division of RSA Data Security, Inc., United States, 1991.	
JP	CJ	WAYNER, P., "Code Breaker Crack Smart Cards, Digital Safe", New York Times, United States, 06/22/98, on the World Wide Web at: http://www.nytimes.com/library/tech/98/06/biztech/articles/22card.html	

Examiner Signature	Justin Darrow	Date Considered	08/1/2005
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Subsidiary form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 4

Complete if Known

Application Number	09/930,836
Filing Date	August 15, 2001
First Named Inventor	Paul C. Kocher
Group Art Unit	2132
Examiner Name	Darrow, Justin T.
Attorney Docket Number	44424162-8724

U.S. PATENT DOCUMENTS

Class/Subclass

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		Number-Kind Code ² (if known)			
JP	AA	US-4,200,770 A	04/29/1980	Hellman et al.	178/22
JP	AB	US-4,203,166 A	05/13/1980	Ehrsam et al.	375/2
JP	AC	US-4,211,919 A	07/08/1980	Ugon	235/487
JP	AD	US-4,214,126 A	07/22/1980	Wipff	179/1.5m
JP	AE	US-4,243,890 A	01/06/1981	Miller et al.	250/551
JP	AF	US-4,405,829 A	09/20/1983	Rivest et al.	178/22-1
JP	AG	US-4,759,063 A	07/19/1988	Chaum	380/30
JP	AH	US-4,905,176 A	02/27/1990	Schulz	364/717
JP	AI	US-5,136,643 A	08/04/1992	Fischer	380/23
JP	AJ	US-5,241,598 A	08/31/1993	Raith	380/21
JP	AK	US-5,297,201 A	03/22/1994	Dunlavy	380/6
JP	AL	US-5,341,423 A	08/23/1994	Nossen	380/6
JP	AM	US-5,369,706 A	11/29/1994	Latka	380/23
JP	AN	US-5,404,402 A	04/04/1995	Sprunk	380/14
JP	AO	US-5,412,379 A	05/02/1995	Waraska et al.	340/825-72
JP	AP	US-5,539,827 A	07/23/1996	Liu	380/37
JP	AQ	US-5,544,086 A	08/06/1996	Davis et al.	364/408
JP	AR	US-5,546,463 A	08/13/1996	Caputo et al.	380/25

FOREIGN PATENT DOCUMENTS

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Examiner Initials*	Cite No. ¹	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ⁴ Number ⁵ Kind Code ⁶ (if known)				
	AS	EP 0 529 261 A2	03/03/1993	IBM Corp.	104L 9/28	<input type="checkbox"/>
	AT	EP 0 582 395 A2	02/09/1994	Digital Equipment Corp.	104L 29/06	<input type="checkbox"/>
						<input type="checkbox"/>
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						<input type="checkbox"/>

Examiner
Signature

Justin Darrow

Date

Considered

09/21/2005

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PTO/SB/08a (08-03)

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Substituted Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known Application Number 09/930,836 Filing Date August 15, 2001 First Named Inventor Paul C. Kocher Group Art Unit 2132 Examiner Name Darrow, Justin T. Attorney Docket Number 44424162-8724	
Sheet	2	of	4

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		Number-Kind Code ² (if known)				
JP	AU	US-5,552,776 A	09/03/1996	Wade et al.	340/825.37	
JP	AV	US-5,559,887 A	09/24/1996	Davis et al.	380/24	
JP	AW	US-5,600,324 A	02/04/1997	Reed et al.	341/176	
JP	AX	US-5,633,930 A	05/27/1997	Davis et al.	380/24	
JP	AY	US-5,663,896 A	09/02/1997	Aucsmith	395/187.01	
JP	AZ	US-5,733,047 A	03/31/1998	Furuta et al.	384/43	
JP	BA	US-5,761,306 A	06/02/1998	Lewis	380/21	
JP	BB	US-5,778,065 A	07/07/1998	Hauser et al.	380/21	
JP	BC	US-5,848,159 A	12/08/1998	Collins et al.	380/30	
JP	BD	US-5,991,415 A	11/23/1999	Shamir	380/30	
JP	BE	US-5,995,629 A	11/30/1999	Reiner	380/50	
JP	BF	US-6,041,122 A	03/31/2000	Graunke et al.	380/21	
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Examiner Signature	Justin Darrow	Date Considered	08/21/2005
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Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/930,836
				Filing Date	August 15, 2001
				First Named Inventor	Paul C. Kocher
				Group Art Unit	2132
				Examiner Name	Darrow, Justin T.
Sheet	3	of	4	Attorney Docket Number	44424162-8724

OTHER ITEMS - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
BP	B G	BELLARE et al., "Incremental Cryptography: The Case of Hashing and Signing" in: DESMEDT, Y., Advances in Cryptology - Crypto '96 (Berlin, Springer, 1996), pp. 104-113	
BP	B H	MENZES et al., "Handbook of Applied Cryptography" (CRC Press, 1996), pages including 285-298, 312-319, 452-462, 475, 512-524	
BP	B I	Bank Technology News. "Cries of Wolf Over Smart Card Security?" Faulkner & Gray, Inc. 01 November 1996	
BP	B J	American National Standards for Financial Services, secretariat - American Bankers Association (ANS/ABA x9.24-1997), "Financial Services Key Management," approved April 6, 1992, American National Standards Institute; pgs. 1-71	
BP	B K	JUENEMAN, Robert R., "Analysis of Certain Aspects of Output Feedback Mode", Satellite Business Systems, 1998; pgs. 99-127	
BP	B L	BAUER, Friedrich L., "Cryptology - Methods and Maxims", Technical University Munich, 1998; pgs. 31-48	
BP	B M	CONNOR, Doug (Technical Editor), "Cryptographic Techniques - Secure Your Wireless Designs", 01/18/96; pgs. 57-68	
BP	B N	HORNAUER et al., "Markov Ciphers and Alternating Groups," Eurocrypt 91, 1991; pgs. 453-460	

Examiner Signature	<i>Justin Darrow</i>	Date Considered	08/21/2005
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		Filing Date	August 15, 2001		
		First Named Inventor	Paul C. Kocher		
		Group Art Unit	2132		
		Examiner Name	Darrow, Justin T.		
Sheet	4	of	4	Attorney Docket Number	44424162-8724

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JO	B O	KOBLITZ, "A Course in Number Theory and Cryptography" 2e, 1994, Chapter III; pgs. 53-77	
GP	B P	LAI et al., "Markov Ciphers and Differential Cryptanalysis," Eurocrypt 91, 1991; pgs. 17-38	
JO	B Q	HACHEZ et. al. "Timing Attack: What Can Be Achieved By A Powerful Adversary?" 1999	
JO	B R	KOCHER, Paul C., "Cryptanalysis of Diffie-Hellman, RSA, DSS, and Other Systems Using Timing Attacks," Report 7 December 1995; pgs. 1-6	
JO	B S	KALISKI, Burt, "Timing Attacks on Cryptosystem," RSA Laboratories, Bulletin, Number 2, January 23, 1996	

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